

Application No. 09/647,670  
Amendment dated March 10, 2003  
Reply to Final Office Action dated December 10, 2002

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

*Sub*  
Claim 1 (currently amended): A container for transporting bulk material including two side walls, two end walls and a base, wherein at least one said side wall includes at least one internal ridge running along said at least one side wall between said end walls, and wherein said ridge is integrally formed within said at least one side wall and the distance from which said ridge projects from said side wall is greater than the thickness of said side wall; and wherein said ridge includes a first wall portion angled from said wall towards the interior of said container, and a second wall rejoining said first wall portion to said wall, and wherein the angle of said first wall portion is in the direction of flow during unloading of the material to be transported.

*W*  
Claim 2 (currently amended): A container for transporting bulk material including two side walls, two end walls, and a base; said side walls including a plurality of vertical reinforcing members spaced along the length of said side wall, wherein said side wall between at least one adjacent pair of said reinforcing members includes at least one internal ridge running therebetween, wherein said ridge is integrally formed within said side wall and the distance from which said ridge projects from said side wall is greater than the thickness of said side wall, and wherein said ridge includes a first wall portion angled from said wall towards the interior of said container, and a second wall portion rejoining said first wall portion to said wall, and wherein the angle of said first wall portion is in the direction of flow during unloading of the material to be transported.

Claim 3 (original): A container as claimed in claim 2 further including at least one internal ridge between each of said reinforcing members.

Claim 4 (previously amended): A container as claimed in claim 2 including additional reinforcement aligned along said internal ridge between each of said reinforcing members.

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*1/1*  
*cont*

Claim 5 (previously amended): A container as claimed in claim 2, further including at least one internal ridge between on said end wall and a first reinforcing member.

*1/2*  
*W*

Claim 6 (canceled)

Claim 7 (previously amended): A container as claimed in claim 1, adapted for unloading of material through the base of the container, wherein said ridge includes a first wall portion angled from said wall away from the interior of said container, and a second wall portion rejoining said first wall portion to said wall.

*1/3*  
*W*

Claim 8 (canceled)

Claim 9 (previously amended): A container as claimed in claim 1, wherein said internal ridge includes a first wall portion deflected inwardly a progressively increased degree relative to the intersection of said side wall and said base, and a second wall portion extending from said first wall portion and being deflected outwardly a progressively decreased degree relative to the intersection of said side wall and said base.

Claim 10 (currently amended): A container as claimed in claim 6 1 wherein said first wall portion extends from said side wall at an angle  $\phi_1$ , wherein:

$$\phi_1 \leq \phi_2 - \phi_3 - 90^\circ$$

where:

$\phi_1$  - is the angle between said side wall and said first wall portion,

$\phi_2$  - is the angle said container is rotated during unloading of said container, and

$\phi_3$  - is the natural angle of repose of material to be transported in said container.

Claim 11 (currently amended): A container as claimed in claim 6 1 wherein said first wall portion extends from said side wall at an angle  $\phi_1$ , wherein:

$$\phi_1 \leq \phi_2 - \phi_3 - \phi_4 - 90^\circ$$

where:

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*fi  
cont*

- ϕ1 - is the angle between said side wall and said first wall portion,
- ϕ2 - is the angle said container is rotated during unloading of said container,
- ϕ3 - is the natural angle of repose of material to be transported in said container, and
- ϕ4 - is the cohesion of said material to be transported when wet.

*W  
W*

Claim 12 (currently amended): A container as claimed in claim 6 1 adapted for unloading of material through the base of the container, and wherein said first wall portion extends from said side wall at an angle ϕ1, wherein:

$$\phi 1 \leq 90^\circ - \phi 3$$

- ϕ1 - is the angle between said side wall and said first wall portion, and
- ϕ3 - is the natural angle of repose of material to be transported in said container.

Claim 13 (currently amended): A container as claimed in claim 6 1 adapted for unloading of material through the base container, and wherein said first wall portion extends from said side wall at an angle ϕ1, wherein:

$$\phi 1 \leq 90^\circ - \phi 3 - \phi 4$$

where:

- ϕ1 - is the angle between said side wall and said first wall portion,
- ϕ3 - is the natural angle of repose of material to be transported in said container, and
- ϕ4 - is the cohesion of said material to be transported when wet.

Claim 14 (currently amended): A container as claimed in claim 6 1 wherein said first and second wall portions are symmetrical.

Claim 15 (currently amended): A container as claimed in claim 6 1 wherein said second wall portion is convex or concave relative to the interior of the container.

Claim 16 (currently amended): A container as claimed in claim 6 1, wherein said first wall portion is aligned with the flow of material during unloading of said container.

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*17*  
*Cont*  
Claim 17 (currently amended): A container as claimed in claim 6 1, wherein said ridge further includes a third wall portion between said first wall portion and said second wall portion.

*18*  
Claim 18 (original): A container as claimed in claim 17 wherein said third wall portion is concave.

*19*  
Claim 19 (original): A container as claimed in claim 17 wherein said third wall portion is flat or straight.

*20*  
Claim 20 (original): A container as claimed in claim 19 wherein said third wall portion is parallel to said side wall.

*21*  
Claim 21 (original): A container as claimed in claim 19 wherein said third wall portion is angled relative to said side wall.

*22*  
Claim 22 (previously amended): A container as claimed in claim 17 wherein said first wall portion is equal to or longer than said third wall portion.

*23*  
Claim 23 (currently amended): A container as claimed in claim 6 1, wherein at least one said side wall further includes a partial ridge along the top or rim of said at least one side wall, said partial ridge being formed by a fourth wall portion, said fourth wall portion being equivalent to said first wall portion.

*24*  
Claim 24 (original): A container as claimed in claim 23, wherein said fourth wall portion is of equal length to said first wall portion.

*25*  
Claim 25 (previously amended): A container as claimed in claim 23 wherein said partial ridge further includes a strengthening member along the periphery of said fourth wall portion, said strengthening member forming the rim of said container.

*26*  
Claim 26 (original): A container as claimed in claim 25, wherein said strengthening member is integrally formed within said at least one side wall.

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*Claim 27*  
Claim 27 (previously amended): A container as claimed in claim 1 wherein said base of said container includes at least one ridge extending substantially along the length of said base.

*Claim 28*  
Claim 28 (original): A container as claimed in claim 27 wherein said at least one ridge along said base is located about wheel or track positions of a support for said container.

*Claim 29*  
Claim 29 (canceled)

*Claim 30*  
Claim 30 (previously amended): A container as claimed in claim 1 for use in transportation of bulky material by road.

*Claim 31*  
Claim 31 (previously amended): A container as claimed in claim 1 for use in transportation of bulk material by rail.

*Claim 32*  
Claim 32 (new): A container for transporting bulk material including two side walls, two end walls and a base, wherein at least one said side wall includes first and second wall portions defining an integral ridge running along said at least one side wall between said end walls, said ridge projecting towards the interior of said container a distance greater than the thickness of said side wall, and wherein the angle that said first wall portion projects towards the interior of the container is a function of the angle of repose of the material such that said first wall portion is aligned with the flow of material during unloading of the container.